**

Report of Feed Assessment in Babati District, Manyara Region

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# Summary

Feed assessment tool was applied in characterizing the production systems mainly related to feed innovation in Babati district. The villages involved were Long, Sabilo and Seloto. The exercise was categorized into two sessions, namely, focused group discussions and individual interviews. A number of 117 (93 males and 24 females) participants (farmers) were involved in the focus group discussion and 36 farmers involved in individual interviews. Feeding practice dominate in both villages is open grazing system. The key issue is low productivity potential of the animals which is an implication of lack of knowledge/skills on general animal husbandry and/or feed shortage mainly due to seasonality. This may possibly be a potential entry point for interventions in each village.

# Acknowledgements

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# PRA Report on Assessment of livestock production systems with regard to feeding aspects in Babati District- Manyara

# Introduction

The study on characteristics of livestock production system in particular feed-related aspects was carried out in Babati District, Tanzania using the Feed Assessment Tool (FEAST) developed by Duncan et al. (2012). Babati District is one of the six Councils of Manyara Region, it is divided into two Local Government Authorities forming Babati District Council and Babati Town Council. Others District Council include Hanang, Mbulu, Simanjiro and Kiteto.

## Geographical location of the District, infrastructure and natural resources

Babati District Council is located below the Equator between 30 and 40 latitude and longitude 350 and 360 of Greenwich. Neighbouring districts are Monduli in the North, Karatu in the Northwest, Mbulu in the West, Hanang in the Southwest, Kondoa in the South and Simanjiro in the East. The District council covers a total area of 5,609 square kilometers. 4,969 square kilometers is land area, the water bodies of Lake Babati, Lake Burunge and Lake Manyara cover the rest. Babati District Council covers total area of 5,608.14 square kilometers and is divided into 4 divisions (Babati, Gorowa, Mbugwe and Bashnet), 21 wards and 96 villages. The Council Headquarter is located at Babati Town, the capital of Manyara Region which is 167 kilometers south of Arusha region on the Arusha –Dodoma and Singida Road.

The most commonly used means of communication is through roads, however the roads are not in good condition especially during the rain seasons. There are 882.8 kilometres of roads of which 135.4 kilometres are trunk roads, 87.8 kilometres are regional roads, 388.4 kilometres are district roads and 302 kilometres are feeder roads 26.4km and village roads 275.6 km. There is only 12 kilometres of roads which are tarmac at Minjingu and Dabili- Bashnet. Total length for District roads is 388.4 kilometres, among this 148 kilometres are gravel and 240.4 are earth. The geographical features of Babati District Council is of highlands and lowlands warrant availability of several rivers, streams and gullies.

## Agriculture potentials (Types and status of Crops and livestock kept)

Generally, about 90% of the population of Babati District Council live in the rural areas and depend on agriculture and livestock for their livelihood The council land which is potential for agriculture is about 134, 187 ha whereby 120,000 ha is under the cultivation of various food and cash crops. The main types of crops grown are cereals, legumes and oil crops. Moreover, the potential land for irrigation is 15,988 ha and land area under irrigation is 5,962 ha.

The potential land for livestock production is 212,100 Ha which is all under livestock production. The types of livestock kept are cattle, sheep, goats, donkeys, chickens and pigs, to mention few.

The rural population is mainly consists of small-scale farmers and agro-pastoralists who are practicing semi traditional farming system which is characterized by low use of farm inputs. Therefore the agricultural production is technically below the obtainable average levels. Apart from primary production and the government sector, the informal sector provides an alternative source of employment and income.

# Methodology

## Research Team

The research team consisted of 4 researchers (1 female, 3 male) from Tanzania Livestock Research Institute (TALIRI) – Tanga and 4 extension officers (all male), 1 from the district and 1 from each village (Appendix 1).

The actual sites for All PRAs were done around the village office except in Seloto where one PRA (in Daktara B hamlet) was done in under the tree in a common meeting place. The total number of participants was 117 (93 males and 24 females) and the individual interviewed farmers were 6 in each site (Table 1). Average time taken per PRA and individual interview together was 2 hours and 40 minutes, respectively.

**Table 1:** Number of participants and GPS coordinates of sites for FEAST exercise

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Village** | **PRA Site (Hamlet)** | **Number of participants** | **Males** | **Females** | **Village GPS coordinates** | **PRA Site GPS coordinates** |
| Long | Long | 14 | 11(5) | 3(1) | S 06° 27.703’  E 038° 19.989’ | S 06° 27.703’  E 038° 19.989’ |
| Endaw | 15 | 12(5) | 3(1) |
| Sabilo | Dulaghan | 28 | 22(4) | 6(2) | S 04° 13.528’  E 035° 26.972’ | S 04° 13.528’  E 035° 26.972’ |
| Getanyamur | 14 | 11(5) | 3(1) |
| Seloto | Semaki B | 20 | 16(5) | 4(1) | S 04° 14.510’  E 035° 29.783’ | S 04° 14.510’  E 035° 29.783’ |
| Daktara B | 26 | 21(3) | 5(3) | S 04° 14.891’  E 035° 30.953’ |

**NB:** Numbers in brackets are farmers of the interviewed with questionnaire

Selection of farmers for PRA was purposively for livestock keepers and for individual interview was based on wealth category of farmers (small, medium and large farmers).

## Experience in applying the tool

**Long village**

* Farmers actively participated in the discussion
* The was a burial ceremony nearby leading to poor time management by farmers- it took long before they assembled in the venue
* Poor farmers selection, some of them are not livestock keepers and there was also language barrier to some of them
* There was gender imbalance
* Some farmers moved out of the discussion to attend another meeting conducted by ADRA

**Sabilo village**

* Farmers actively participated in the discussion
* There was miscommunication on the number of farmers to attend, 40 farmers per hamlet were invited instead of 20 farmers per hamlet. However the turnover were 28 and 14 in Dulaghan and Getanyamur hamlet respectively
* There was gender imbalance
* Poor time management by farmers- it took long before they all assembled in the venue

**Seloto village**

* Farmers actively participated in the discussion
* Gender imbalance
* Poor time management by farmers- it took long before they all assembled in the venue
* Poor farmers selection, there was language barrier to some of them
* The ward executive officer decided by to invite farmers from four hamlets (10 from each hamlet) instead of 40 farmers from 2 hamlets as planned. However, the situation was reversed to the initial plan though it took much time

NB: In all villages, feed shortage was mentioned as a major problem although it doesn’t come out as a major problem after the pair wise ranking.

|  |
| --- |
| * C:\Users\User\AppData\Local\Temp\DSC02063 Kitongoji cha Endaw.JPG**100_1545** * **LONG SABILO** |
| * 100_1541**PICT1269 Kitongoji cha Daktara (Seloto)** * **SABILO SELOTO** |

**Plate 1:** Farmers during PRA in Long, Sabilo and Seloto villages in Babati

# Results

## Farm demographics

Farm and household sizes were averaged to 3 acre and 8 persons, respectively (Table 2). Labour is available throughout the year and highly required during the cropping season. The cost of labour per day ranges from Tsh. 2500 - 5000 and for cultivating one acre of land ranges from Tsh.20,000 - 40,000.

Table 2: Farm demographics

|  |  |  |  |
| --- | --- | --- | --- |
| **Village** | **Location** | **Average farm size (acre)** | **Household size** |
| Long | Long | 2 | 6 |
| Endaw | 1.5 | 6 |
| Sabilo | Dulaghan | 6 | 9 |
| Getanyamur | 6 | 10 |
| Seloto | Semaki B | 1 | 5 |
| Daktara B | 2 | 9 |

**NB:** 1 acre = 0.4 ha

## Wealth classes in the villages

Large farmers were characterized by having more than 3 ha reaching up to 12 ha and small farmers having 0.5 to 2 ha. This is with the exception of Dulaghan hamlet in Sabilo village where wealth classes were characterised by number of livestock kept (Table 3 and 4).

**Table 3:** Wealth classes in Long, Sabilo and Seloto villages, Babati District

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category of farmer** | **Long** | |  | **Sabilo (Getanyamur)** | |  | **Seloto** | |
| **Range of land size (ha)** | **Households falling into the category (%)** |  | **Range of land size (ac)** | **Households falling into the category (%)** |  | **Range of land size (ac)** | **Households falling into the category (%)** |
| Small | 0.5 – 1 | 60 |  | 0.5 – 2.0 | 16 |  | 1-2 | 82 |
| Medium | 1.1 – 3 | 30 |  | 2.1 – 5 | 35 |  | 2.1-5 | 8 |
| Large | >3 | 10 |  | 5.1 – 12 | 49 |  | 5.1 - 10 | 10 |

**Table 4:** Wealth classes in Sabilo – Dulaghan, Babati District

|  |  |  |
| --- | --- | --- |
| **Category of farmer** | **Sabilo (Dulaghan)** | |
| **Range of livestock kept** | **Households falling into the category (%)** |
| Small | 1 – 10 | 80 |
| Medium | 11 – 20 | 17 |
| Large | 21 - 100 | 3 |

## Contribution of livelihood activities

Contribution of livelihood activities to household income is mainly from agriculture, however, livestock also shows to have potential contribution while other activities have minor contribution (Figure 1). Major exception is in Long hamlet where livestock, labour and agriculture has almost equal contribution.

|  |  |
| --- | --- |
| 1.jpg | 2.jpg |
| 3.jpg | 4.jpg |
| 5.jpg | 6.jpg |

**Figure 1:** Contribution of livelihood activities to household incomes

## Crops and cropping seasons

Generally, there are three cropping seasons in the area (Figure 2), named mwaka/masika (long rains), vuli (short rains), kiangazi (dry period). In Endaw hamlet seven cropping seasons were mentioned to mean each season with its own particular activity done. The perception of seasons was quite different between the three villages e.g. the core season for the long rains seems to vary from village to village and also within Seloto village. This can indicate high variability in this particular area that could be explained by its geographical features i.e. highlands and lowlands.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Long– Long**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Name of season** | **Jan** | **Feb** | **March** | **April** | **May** | **June** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | | 1. Mwaka |  |  |  |  |  |  |  |  |  |  |  |  | | 2.Vuli |  |  |  |  |  |  |  |  |  |  |  |  | | 3. Kiangazi |  |  |  |  |  |  |  |  |  |  |  |  | |
| **Long – Endaw**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Name of season** | **Jan** | **Feb** | **March** | **April** | **May** | **June** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | | 1. Masika |  |  |  |  |  |  |  |  |  |  |  |  | | 2. Aqwary |  |  |  |  |  |  |  |  |  |  |  |  | | 3. Huyaa |  |  |  |  |  |  |  |  |  |  |  |  | | 4. Domo |  |  |  |  |  |  |  |  |  |  |  |  | | 5. Domo quaa |  |  |  |  |  |  |  |  |  |  |  |  | | 6. Tsaqutamo |  |  |  |  |  |  |  |  |  |  |  |  | | 7. Kiangazi |  |  |  |  |  |  |  |  |  |  |  |  | |
| **Sabilo – Dulaghan**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Name of season** | **Jan** | **Feb** | **March** | **April** | **May** | **June** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | | 1. Masika |  |  |  |  |  |  |  |  |  |  |  |  | | 2.Vuli |  |  |  |  |  |  |  |  |  |  |  |  | | 3. Kiangazi |  |  |  |  |  |  |  |  |  |  |  |  | |
| **Sabilo – Getanyamur**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Name of season** | **Jan** | **Feb** | **March** | **April** | **May** | **June** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | | 1. Masika |  |  |  |  |  |  |  |  |  |  |  |  | | 2. Vuli |  |  |  |  |  |  |  |  |  |  |  |  | | 3. Kiangazi |  |  |  |  |  |  |  |  |  |  |  |  |   **Seloto – Semaki B**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Name of season** | **Jan** | **Feb** | **March** | **April** | **May** | **June** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | | 1. Masika |  |  |  |  |  |  |  |  |  |  |  |  | | 2.Vuli |  |  |  |  |  |  |  |  |  |  |  |  | | 4. Kiangazi |  |  |  |  |  |  |  |  |  |  |  |  | |
| **Seloto – Daktara B**   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Name of season** | **Jan** | **Feb** | **March** | **April** | **May** | **June** | **July** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | | 1. Masika |  |  |  |  |  |  |  |  |  |  |  |  | | 2. Domu |  |  |  |  |  |  |  |  |  |  |  |  | | 3. Kiangazi |  |  |  |  |  |  |  |  |  |  |  |  | |

**Figure 2:** Cropping seasons in Babati

The major crops are grown during the cropping season are being maize and beans. Potatoes are highly grown in high altitude i.e. Long village whereas in Sabilo and Seloto villages sunflower and pigeon peas are also dominant crops respectively. Other crops include sweet potatoes, pumpkins, cowpeas, sorghum and wheat (Figure 3). Mixed cropping system is highly practiced in the area (at least four crops are integrated per season) and the grown crops are used both as a source of food and for income generation.

Farmers demand for more land for cultivation is high as the available land is claimed not to be enough for crop cultivation. This is why multiple cropping is practiced and fallowing is not commonly experienced.

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**Figure 3:** Crop grown in the area (dominant crops)

## Livestock and livestock systems

In all villages the local breeds are strongly dominant over the improved breeds. This is mainly due to the type of production system practiced. The local species are well adapted to a particular context compared to improved breeds. On the other hand, farmers in all villages are increasingly becoming aware on the importance of improving their breeds.

Livestock species raised in the area include local dairy cows, improved dairy cows, sheep, goats and poultry-village condition (Table 4). Others include pigs, donkey, draught cattle and fattening cattle. Almost all livestock species are mainly used as a source of food and income, other uses include manure (farm yard manure), draught power and for dowry purposes.

**Table 5:** Summary of estimated proportions of household that own a livestock species and average number of animals (range in brackets)

|  |  |  |  |
| --- | --- | --- | --- |
| **Livestock species** | **Uses** | **Proportions of household that own the species (%)** | **Average No. of animals per household** |
| Local dairy cows | Milk, meat, income, manure, skin, dowry | 84 [60-100] | 8 [4-10] |
| Improved dairy cows | Milk, income, meat, skin, manure | 6 [1-20] | 2 [1-2] |
| Draught cattle | Land cultivation, carrying luggage, meat, income | 60 [30-100] | 4 [2-4] |
| Fattening cattle | Meat, income, manure | 3 [5-15] | 1 [1-2] |
| Sheep | Meat, income, manure, dowry, taboos, fine paying | 32 [2-80] | 8 [2-20] |
| Goats | Meat, income, manure, dowry | 32 [2-80] | 9 [5-20] |
| Pigs | Meat, income, manure, lard | 4 [1-15] | 2 [1-2] |
| Poultry-village condition | Meat, income, eggs, manure | 93 [80-100] | 11 [10-18] |
| Donkey | Carrying luggage, fetching water, means of transport, manure | 11 [1-50] | 1 [1-2] |

Management of animals is as follows;

* Open grazing is a common practice and in the evening animals are left in kraal. However, sick animals are always zero grazed. During dry periods farmers move with their animals (to as far as 50 km) for searching feeds and water
* Natural suckling is applied to calves for an average period of 6 months before weaning and de-worming is seldom done to calves at three months of age.
* No records are kept due to large herds of animals i.e. difficult to keep records.

Main diseases highlighted by farmers include ECF, Anaplasmosis, Babesiosis and Contagious Bovine Pleuro Pneumonia (CBPP). Liver flukes are a common infestation in the area. Prevention/control and treatment is done by livestock extension officers. The treatment cost for ECF can go up to Tsh.50,000/= and for anaplasmosis is Tsh. 15,000/=. However, cost of treatment depends mainly on type and severity of the disease.

Bulls are commonly used for reproduction because as the AI service is not yet introduced in the area. There is no cost for bull service in Long and Sabilo, but a cost of Tsh. 8,000/= - 10,000/= is charged per conception in Seloto. Bull to cow ratio is not well known but it is assumes to be at 1:10.

The type of cattle kept is mainly local dairy cows with very low milk productivity i.e. 1.5 litres per cow per day. This could be due to poor management of these animals particularly in the nutrition aspect. Almost all milk is left for home consumption and very little milk is sold and the average price of milk is Tsh. 800/= per litre. The price of live cattle, sheep and goats on average are Tsh. 700,000/=, 60,000/= and 80,000/=, respectively.

|  |  |
| --- | --- |
| 100_1549  **SABILO** | PICT1275 Daktara B aseloto  **SELOTO** |

## Feeds and feeding systems

**Availability of feed resources**

Grazing contributes the largest proportion of the feed based on a dry matter (DM) basis (85%), metabolizable energy (ME) (84%) and crude protein (CP) (84%) in the area throughout the year. Maize (Zea mays) - gluten with bran is the only used purchased feed resource by few farmers (25%) in the area and the average price is Tsh. 1600/= There is no fodder cultivation in the area, crop residues contribute to a lesser extent (14%) as feed source.

Feed processing and conservation is not practiced in the area, crop residues are left in the field to be grazed by the animals later. Seasonality of feed availability has implication on feeds shortage in the area; high abundance is during long rains and less abundance during dry periods.

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| --- | --- | --- |
| 1.jpg | 2.jpg | 3.jpg |
| 4.jpg | 5.jpg | 6.jpg |
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**Figure 4:** Available feed resources in the study area

Maize gluten with bran is the only used purchased feed resource in the area, although its dietary contribution is negligible (Figure 5).

Other sources are from cultivated fodder and crop residues. Feed processing e.g. chopping is applied by the majority of farmers (60%), only 10% practice molasses or salt treatment of the feed and supplementation with maize bran is done by few farmers (30%).

Seasonality of feed availability is the case in the area; high abundance is during long rains and less abundance during dry periods (Figure 5), nevertheless there does not seem to be extreme shortage in the latter.

|  |  |
| --- | --- |
| 1.jpg | 2.jpg |
| 3.jpg | 4.jpg |
| 5.jpg | 6.jpg |

Figure 5: Available feed sources utilized by farmers throughout the year

## Agricultural and livestock inputs and services

There is no any cash/credit providers in the area and agro-vet inputs are available from local sellers at a distant area (about 10 km) away from the villages. However, the inputs are claimed to be very expensive. Extension staffs are available in the area and they are responsible for provision of advices in livestock production including prevention/control of livestock diseases.

## Constraints and opportunities

The major five problems in their descending order of importance as identified by farmers and their proposed solutions are given in Table 6.

**Table 6:** Pair wise ranking of identified problems and proposed solutions by farmers during PRA

|  |  |  |  |
| --- | --- | --- | --- |
| **Site** | **Problems in order of importance** | **Solution** | **Pair wise ranking results** |
| Long - Long | Lack of enough land for forages | -Maintain stocking rate  -Provision of training on forage conservation | 2 |
| Water scarcity | Construction of charcoal dams | 3 |
| Livestock auctions | To have at least two auctions per month | 5 |
| Lack of improved dairy cattle | Sourcing of improved dairy cattle (stake holders to assist) | 1 |
| High cost of treatments | To have improved dairy cattle to increase income from milk sale i.e. high savings | 4 |
| Long - Endaw | Lack of knowledge on general animal husbandry | Provision of training to farmers on general animal husbandry | 3 |
| Lack of enough forages for feeding animals | -Use specific stocking rate  -Provision of knowledge on pasture management, utilization and conservation  -Establish improved drought tolerant pasture species | 4 |
| Shortage of water for livestock | Stakeholders to assists in water distribution from the source | 1 |
| Unavailability of dip tank | Construction of dip tank in the village (stakeholders and farmers to play part) | 5 |
| Lack of enough livestock extension staff | Government to recruit new livestock extension staff at least one per village | 2 |
| Sabilo - Dulaghan | Unavailability of dip tank | Construction of dip tank in the village (Government to assist) | 3 |
| Unavailability of vaccinations and proper treatment of livestock diseases | To have livestock extensionist at least in each village (Government to assist) | 2 |
| Feed scarcity | Provisions of knowledge and sourcing planting materials of improved and drought tolerant pasture species | 1 |
| Lack of knowledge on livestock husbandry | Provision of training to farmers on general animal husbandry | 2 |
| Lack of improved dairy cattle | Provision of improved bulls (Stakeholders to assist) | 1 |
|  |  |  |  |
| Sabilo - Getanyamur | Feed scarcity | Provisions of planting materials of improved and drought tolerant pasture species | 1 |
| Long distances to get veterinary drugs (15 km) | Veterinary inputs suppliers be available to the village level | 2 |
| Low genetic potential of the breeds | Provision of improved bulls (Government/stakeholders to assist), use of AI | 1 |
| Unavailability of nearby cattle auction (the available auction is too far -15 km) and low market price of animals | Construction of cattle auctions to the village levels and to have proper supervisions of market prices (Government to assist) | 2 |
| Lack of enough livestock extension staff | Government to recruit new livestock extension staff at least one per village | 1 |
|  |  |  |  |
| Seloto – Semak B | Unavailability of dip tank | Construction of dip tank in the village (Government to assist) | 4 |
| Feed scarcity | Planting materials of improved and drought tolerant pasture species | 3 |
| Lack of enough livestock extension staff | Government to employ enough livestock extension staff | 5 |
| Lack of improved dairy cattle | - Provision of improved bulls  - Use of AI | 1 |
| Water scarcity | Construction of bore holes/charcoal dams | 2 |
|  |  |  |  |
| Seloto – Daktara B | Feed scarcity | -Establish improved drought tolerant pasture species  -Improve forage conservation | 3 |
| Livestock diseases | Education on proper animal husbandry | 4 |
| Water scarcity | Improvement and maintenance of water sources (Government to assist) | 2 |
| Unavailability of nearby livestock auction and low market price of animals | Construction of cattle auctions to the village levels (Government and stakeholders to assist) | 1 |
| Unavailability of dip tank | -Provision of education on proper animal husbandry  -Construction of dip tank in the village (stakeholders and farmers to play part) | 5 |

**Table 6:** Summary of the major problems and proposed solutions

|  |  |  |
| --- | --- | --- |
| **SN.** | **Problem** | **Solution** |
| 1. | Feed and water scarcity | -Use specific stocking rate  -Provision of knowledge on pasture management, utilization and conservation  -Establish improved drought tolerant pasture species  -Construction of bore holes/charcoal dams and Improvement and maintenance of water sources |
| 2. | Low genetic potential of the breeds and lack of improved dairy breeds | -Sourcing and provision of improved dairy cattle (bulls) (Government/stake holders to assist  -Use of AI |
| 3. | Lack of enough knowledge education on general animal husbandry | Provision of training on general animal husbandry (Government/stakeholders to assist) |
| 4. | Lack of enough extension and veterinary services | Government to employ enough livestock extension staff |
| 5. | Unavailability of nearby livestock auction and low market price of animals | -Construction of cattle auctions to the village levels (Government and stakeholders to assist)  -To have at least two auctions per month |

|  |  |
| --- | --- |
| 100_1531  LONG | DSC02076 Kitongoji cha Endaw  SABILO |

**Plate 2:** Pair wise ranking during PRA in Long and Sabilo village

**Opportunities**

* Availability of extension staff to provide livestock services to farmers, i.e. AI services, prevention/control and treatment of diseases and advisory services on farmers’ group formation.
* Conducive weather condition for pasture establishment and keeping improved livestock species especially in Long village.

# Conclusion and Recommendations

The exercise revealed that livestock keeping contributes much to the income of the farmers in the study area; therefore, the following was concluded;

* Low productivity potential of the animals is an implication of lack of knowledge/skills on general animal husbandry and/or feed shortage mainly due to seasonality.
* Feed conservation is not very much practiced by farmers, hence, there is feed shortage especially during dry periods.
* Although feed shortage was mentioned as a major problem in all villages, availability of crop residues from multiple cropping could be a reason for it not to come out as a major problem after the pair wise ranking.

The following was recommended:

Farmers need to be trained on general animal husbandry. Government and other stakeholders are required to take an integrated approach to improve livestock extension services and provision of education to farmers through short courses, seminars, workshops. Emphasis should be put in the importance of feeds and feeding.

# References

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# Appendices

**Appendix 1:** The research team for FEAST exercises

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| --- | --- | --- |
| **Name** | **Gender** | **Institution, function** |
| Rose Loina | Female | TALIRI, Livestock Research officer |
| Walter Mangesho | Male | TALIRI, Livestock Research officer |
| John Diyu | Male | TALIRI, Livestock Research officer |
| Valentino Urassa | Male | TALIRI, Livestock Research officer |
| Alphonce Haule | Male | Babati District Livestock Office, Extension officer |
| Patrick Kisamo | Male | Babati District Livestock Office, Extension officer |
| Christopher Lyamuya | Male | Babati District Livestock Office, Extension officer |
| Bernad Sambali | Male | Babati District Livestock Office, Extension officer |

**END.**